



Dart Aerospace Ltd.  
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Hawkesbury, ON  
K6A 1K7  
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Tel (613) 632-5200  
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**D3873-1**  
**Job Sheet 199310**

**Part No:** D3873-1      **Job Qty:** 50 pcs  
**Part Name:** Bushing  
  
**Part Weight:** 0 lbs      **Status:** New      **Priority:** Medium  
**Job Created:** 8/16/19      **Job Tracking No:**  
**Due Date:** 9/6/19      **Created By:** Marie Lajeunesse  
**Type:** SOLD      **Description:**  
**Note:** DWG REV C  
**Ship Via:**

Bill of Materials

Job Routing

| Op No | Operation    | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off    |
|-------|--------------|--------|------------|----------|-----------|---------|-----------------------|-----------|-------------|
|       |              |        |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |             |
| 100   | Hardinge - 1 | 50 pcs | 9/6/19     | 9/6/19   | 0.50      | 2.21    | Hardinge - 1          |           | BM 19-08-27 |
| 110   | QC 2         | 50 pcs | 9/6/19     |          | 0.00      | 0.00    | QC 2 - 1              |           |             |
|       |              |        |            |          |           |         | QC 2 - 12             |           |             |
|       |              |        |            |          |           |         | QC 2 - 14             |           |             |
|       |              |        |            |          |           |         | QC 2 - 17             |           |             |
|       |              |        |            |          |           |         | QC 2 - 19             |           |             |
|       |              |        |            |          |           |         | QC 2 - 2              |           |             |
|       |              |        |            |          |           |         | QC 2 - 20             |           |             |
|       |              |        |            |          |           |         | QC 2 - 22             |           |             |
|       |              |        |            |          |           |         | QC 2 - 23             |           |             |
|       |              |        |            |          |           |         | QC 2 - 25             |           |             |
|       |              |        |            |          |           |         | QC 2 - 32             |           |             |
|       |              |        |            |          |           |         | QC 2 - 33             |           |             |
|       |              |        |            |          |           |         | QC 2 - 35             |           |             |
|       |              |        |            |          |           |         | QC 2 - 39             |           |             |
|       |              |        |            |          |           |         | QC 2 - 4              |           |             |
|       |              |        |            |          |           |         | QC 2 - 40             |           |             |
|       |              |        |            |          |           |         | QC 2 - 44             |           |             |
|       |              |        |            |          |           |         | QC 2 - 45             |           |             |
|       |              |        |            |          |           |         | QC 2 - 48             |           |             |
|       |              |        |            |          |           |         | QC 2 - 49             |           |             |
|       |              |        |            |          |           |         | QC 2 - 50             |           |             |
|       |              |        |            |          |           |         | QC 2 - 51             |           |             |
|       |              |        |            |          |           |         | QC 2 - 52             |           |             |
|       |              |        |            |          |           |         | QC 2 - 57             |           |             |
|       |              |        |            |          |           |         | QC 2 - 62             |           |             |
|       |              |        |            |          |           |         | QC 2 - 63             |           |             |
|       |              |        |            |          |           |         | QC 2 - 8              |           |             |
|       |              |        |            |          |           |         | QC 2 - 66             |           |             |
|       |              |        |            |          |           |         | QC 2 - 64             |           |             |
|       |              |        |            |          |           |         | QC 2 - 65             |           |             |



Container No: S209430



**Part:** D3873-1  
**Job No:** 199310  
**Serial No/Batch:** S209430  
**Revision:**  
**Inspector:**  
**Exp Date:**  
**Instructions:** Various STC's

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Date: 08/27/19

|                                 |        |        |           |                         |          |
|---------------------------------|--------|--------|-----------|-------------------------|----------|
| 120 QC 8                        | 50 pcs | 9/6/19 | 0.00 0.00 | QC 2 - 5                |          |
|                                 |        |        |           | QC 2 - 71               |          |
|                                 |        |        |           | QC 2 - 73               |          |
|                                 |        |        |           | QC 2 - 69               |          |
|                                 |        |        |           | QC 8 - 12               | 20/10/28 |
|                                 |        |        |           | QC 8 - 14               |          |
|                                 |        |        |           | QC 8 - 17               |          |
|                                 |        |        |           | QC 8 - 20               |          |
|                                 |        |        |           | QC 8 - 25               |          |
|                                 |        |        |           | QC 8 - 3                |          |
|                                 |        |        |           | QC 8 - 32               |          |
|                                 |        |        |           | QC 8 - 33               |          |
|                                 |        |        |           | QC 8 - 35               |          |
|                                 |        |        |           | QC 8 - 39               |          |
|                                 |        |        |           | QC 8 - 4                |          |
|                                 |        |        |           | QC 8 - 44               |          |
|                                 |        |        |           | QC 8 - 45               |          |
|                                 |        |        |           | QC 8 - 49               |          |
|                                 |        |        |           | QC 8 - 58               |          |
|                                 |        |        |           | QC 8 - 8                |          |
|                                 |        |        |           | QC 8 - 9                |          |
|                                 |        |        |           | QC 8 - 68               |          |
|                                 |        |        |           | QC 8 - 67               |          |
|                                 |        |        |           | QC 8 - 1 (A)            |          |
|                                 |        |        |           | QC 8 - 47               |          |
|                                 |        |        |           | QC 8 - 40               |          |
|                                 |        |        |           | QC 8 - 52               |          |
|                                 |        |        |           | QC 8 - 23               |          |
|                                 |        |        |           | QC 8 - 57               |          |
| 130 Packaging 3-1 - Stock - B4B | 50 pcs | 9/6/19 | 0.00 0.00 | Packaging 3 - 1 - B4B   |          |
|                                 |        |        |           | Packaging 3 - 2 - B4B   |          |
|                                 |        |        |           | → Packaging 3 - 3 - B4B | 7P 001   |
|                                 |        |        |           | Packaging 3 - 4 - B4B   |          |
|                                 |        |        |           | Packaging 3 - 5 - B4B   |          |
|                                 |        |        |           | Packaging 3 - 6 - B4B   |          |
|                                 |        |        |           | Packaging 3 - 7 - B4B   |          |
|                                 |        |        |           | Packaging 3 - 8 - B4B   |          |
|                                 |        |        |           | Packaging 3 - 9 - B4B   |          |
|                                 |        |        |           | Packaging 3 - 10 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 11 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 12 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 13 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 14 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 15 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 16 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 17 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 18 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 19 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 20 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 21 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 22 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 23 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 24 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 25 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 26 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 27 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 28 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 29 - B4B  |          |
|                                 |        |        |           | Packaging 3 - 30 - B4B  |          |

100

THU 8-29-2019

Oscar

|                |        |        |           |                        |                |
|----------------|--------|--------|-----------|------------------------|----------------|
| 140 QC 21 - SA | 50 pcs | 9/6/19 | 0.00 0.00 | Packaging 3 - 31 - B4B |                |
|                |        |        |           | Packaging 3 - 32 - B4B |                |
|                |        |        |           | Packaging 3 - 33 - B4B |                |
|                |        |        |           | Packaging 3 - 34 - B4B |                |
|                |        |        |           | Packaging 3 - 35 - B4B |                |
|                |        |        |           | Packaging 3 - 36 - B4B |                |
| THU 8.29.2019  | 100    |        |           | QC 21 - SA - 21        | FP001          |
|                |        |        |           | QC 21 - SA - 70        |                |
|                |        |        |           | QC 21 - SA - 53        | 21 AUG 29 2019 |

Part Op 100 - (Hardinge) 1-TURN AS PER FOLIO FA806 & DWG D3873 ,  
Descriptions: 110 - (QC2- Inspect parts off machine FAI/FAIB)  
120 - (QC8- Inspect parts - second check)  
130 - (Identify as per dwg & Stock Location: ) LOCATION : FP001  
140 - (QC21- Final Inspection - Work Order Release)

| Job BOM     |                      |               |                  |                    |
|-------------|----------------------|---------------|------------------|--------------------|
| Part / Item | Component Name       | Quantity      | Operation        | Container          |
| M303R0.625  | 303 Round Bar 0.625" | 3 ft (.06 ea) | 100-Hardinge - 1 | S180189<br>S203772 |

| Job Allocations  |                |          |           |           |
|------------------|----------------|----------|-----------|-----------|
| Operation        | Component Part | Required | Inventory | Allocated |
| 100-Hardinge - 1 | M303R0.625     | 3        | 36        | 0         |

| Part Specifications |             |                                |                |       |                  |
|---------------------|-------------|--------------------------------|----------------|-------|------------------|
| Spec No             | Description | Target/Tolerance               | Limits         | Type  | Special Comments |
| 1                   | Bushing     | 0.305Inches + 0.000<br>- 0.002 | 0.305<br>0.303 | 0.304 |                  |
| 2                   | Bushing     | 0.191Inches + 0.005<br>- 0.001 | 0.196<br>0.190 | 0.191 |                  |
| 3                   | Bushing     | 0.563Inches ± 0.010            | 0.573<br>0.553 | 0.563 |                  |
| 4                   | Bushing     | 0.060Inches ± 0.005            | 0.065<br>0.055 | 0.062 |                  |
| 5                   | Bushing     | 0.600Inches ± 0.010            | 0.610<br>0.590 | 0.602 |                  |
| 6                   | Bushing     | 0.010Inches ± 0.010            | 0.020<br>0.000 | 0.011 | Radius           |
| 7                   | Bushing     | 0.030Inches ± 0.010            | 0.040<br>0.020 | 0.027 |                  |
| 8                   | Bushing     | 20.0Degrees ± 0.5              | 20.5<br>19.5   | 20°   |                  |

DAS 52 9-89 19/08/22  
Plex 8/16/19 4:14 PM Dart.lajeunesse.marie

MAT used  
1.000  
4.750

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only ☐

NCR No. \_\_\_\_\_

|                                                                                                                                                                                                                                                                                                                                                                              |                   |                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Job: _____<br>Part No. _____                                                                                                                                                                                                                                                                                                                                                 |                   | DISPOSITION<br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/>                                                                                                                                                                                                                   |  | DEPARTMENT/PROCESS<br>Skid-tube <input type="checkbox"/><br>Machining <input type="checkbox"/><br>Large Fab <input type="checkbox"/><br>Cross tube <input type="checkbox"/><br>Small Fab <input type="checkbox"/><br>Finishing <input type="checkbox"/><br>Eng. (Non-AW) <input type="checkbox"/><br>Prod. Eng. Coord. <input type="checkbox"/><br>Rec/Store/Packaging <input type="checkbox"/><br>Engineering <input type="checkbox"/><br>Water Jet <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Quality <input type="checkbox"/> |  |                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                  |  |
| Date: _____                                                                                                                                                                                                                                                                                                                                                                  | Sequence #: _____ | QTY Affected: _____                                                                                                                                                                                                                                                                                                                      |  | MRB (Q51042)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                  |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                             |                   | Disposition                                                                                                                                                                                                                                                                                                                              |  | Completed By                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                              |                   |                                                                                                                                                                                                                                                                                                                                          |  | Lead hand / Supervisor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                              |                   |                                                                                                                                                                                                                                                                                                                                          |  | QC / QA Coordinator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                  |  |
| Root Cause<br>Operator <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Preservation <input type="checkbox"/><br>Material <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Human Factors <input type="checkbox"/> |                   | FAULT CATEGORY<br>Pressure/Forced <input type="checkbox"/><br>Bending <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Cracks <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/><br>Mislabeled <input type="checkbox"/><br>Other/Details: _____ |  | Contamination <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/><br>BOM/Route <input type="checkbox"/><br>Broken/Damage/Defect <input type="checkbox"/><br>Incomplete/Unclear Instructions <input type="checkbox"/><br>Drill Holes <input type="checkbox"/><br>Fit/Function <input type="checkbox"/>                                                                                                                                                                                                                           |  | Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain Direction <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set/Set-up <input type="checkbox"/> |  | Positioned Wrong <input type="checkbox"/><br>Outside Tolerance <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Misread <input type="checkbox"/> |  |